

# PATENT ABSTRACTS OF JAPAN

(11)Publication 07-258026

n number :

(43)Date of 09.10.1995

publication of

application :

---

(51)Int.Cl.

A61K 7/02

---

06-071493

(71)Applicant : SHISEIDO CO LTD

(21)Application

number :

(22)Date of 16.03.1994

filing :

(72)Inventor : NAGANUMA MASAYUKI

KINOSHITA EIKO

OGAWA NAOKO

KUMAGAI SHIGENORI

---

(54) MAKEUP COSMETIC

(57)Abstract:

PURPOSE: To obtain a makeup cosmetic having dry feeling and at the same time smooth and soft feeling when applied on the skin.

CONSTITUTION: This makeup cosmetic is obtained by compounding a spherical powder of an organopolysiloxane elastomer having an average particle diameter of 1.0-15.0 $\mu$ m and a porous powder having an average particle diameter of 1.0-15.0 $\mu$ m in a powdery state.

---

## LEGAL STATUS

[Date of request for examination]

11.07.2000

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

## CLAIMS

---

### [Claim(s)]

[Claim 1] The charge of makeup makeup characterized by coming to contain the organopolysiloxane elastomer spherical fine particles of 1.0-15.0 micrometers of mean particle diameters, and the porous material fine particles of 1.0-15.0 micrometers of mean particle diameters as fine particles.

[Claim 2] The charge according to claim 1 of makeup makeup whose loadings of the porous material fine particles which are 1.0-15.0 micrometers of mean particle diameters the loadings of the organopolysiloxane elastomer spherical fine particles of 1.0-15.0 micrometers of mean particle diameters are 1.0 - 30.0 % of the weight, and are 1.0 - 30.0 % of the weight.

[Claim 3] The charge according to claim 1 or 2 of makeup makeup whose porous material fine particles are a porous material spherical silica, a porous material tabular silica, or porous material spherical resin fine particles.

[Claim 4] The charge according to claim 1 to 3 of makeup makeup whose loadings of fine particles are 70.0 - 99.0 % of the weight to the amount of whole.

---

## DETAILED DESCRIPTION

---

### [Detailed Description of the Invention]

#### [0001]

[Field of the Invention] this invention relates to the charge of makeup makeup which has the touch been smooth and the smooth and soft touch still in detail about the charge of makeup makeup.

#### [0002]

[Description of the Prior Art] The charge of makeup makeup has the various gestalt, such as the solid foundation, the solid eye shadow, the oily foundation, and a lip stick, and modality which blended powder and the oil content. Moreover, there is emulsification foundation which used the emulsification system as the base. As fine particles used for these charges of makeup makeup Talc, a kaolin, a bentonite, a silicic acid anhydride, silicon carbide, an alumina, titanium oxide, carbon black, graphite, a yellow iron oxide, red ocher, a mica, mica titanium, a zirconium oxide, a sericite, a calamine, inorganic pigment fine particles [ like / ultramarine ], A polyethylene resin, polypropylene resin, polyamide resin, acrylic resin, vinyl chloride resin, an epoxy resin, organic synthetic resin like a polystyrene resin, Or many porous material fine particles like a porous spherical silica, a porous tabular silica, and porous spherical resin fine particles etc. are used.

[0003] Among these fine particles, although porous material fine particles were used abundantly from the use touch which oil absorption excelled [ touch ] in transparency greatly, and was been smooth being acquired, they were not what it can still be satisfied of with the point of the smooth and soft use touch.

[0004] On the other hand, the organopolysiloxane elastomer spherical fine particles of 1.0-15.0 micrometers of mean particle diameters had the smooth feeling of inunction, and although it was developed in recent years (JP,2-243612,A, JP,4-17162,B, JP,4-66446,B) and the application to various

products was expected from the desirable property as fine particles for the charges of makeup which give neither sense of incongruity nor a stimulus to the skin, the development was left behind as a future technical problem. this invention was made in view of such a conventional situation, and it is smooth and it aims at offering the charge of makeup which has softness and the smooth use touch.

[0005]

[Means for Solving the Problem] this invention is a charge of makeup characterized by coming to contain the organopolysiloxane elastomer spherical fine particles of 1.0-15.0 micrometers of mean particle diameters, and the porous material fine particles of 1.0-15.0 micrometers of mean particle diameters as fine particles.

[0006] Next, the configuration of this invention is explained. The organopolysiloxane elastomer spherical fine particles of 1.0-15.0 micrometers of the mean particle diameters used by this invention are components required in order to smooth the feeling of inunction to the skin of the charge of makeup of this invention and to raise the lightness of makeup, and the usability of \*\* and a soft feeling in the least.

[0007] Especially the modality of hardenability organopolysiloxane constituent used as the raw material of organopolysiloxane elastomer spherical fine particles is not what is limited. The organopolysiloxane which has silicon atomic-union hydrogen atom inclusion diorganopolysiloxane and a silicon atomic-union vinyl group under platinum system catalyst presence by the addition reaction Addition-reaction hardening type organopolysiloxane constituent; to harden To chain both ends, a hydroxyl group The diorganopolysiloxane and the silicon atomic-union hydrogen atom which it has The diorganopolysiloxane which it has The diorganopolysiloxane and the organosilanes of a adding-water resolvability which have a hydroxyl group in the condensation-reaction hardening type organopolysiloxane constituent; chain both ends which are made to carry out a dehydrogenation and are hardened under presence of an organic tin compound under presence of an organic tin compound or titanate-acid ester The condensation-reaction hardening type organopolysiloxane constituent which is made to carry out a condensation reaction and is hardened (dehydration, a dealcoholization, a \*\* oxime, a \*\* amine, a deamidation, a \*\* carboxylic acid, and a \*\* ketone are illustrated as a condensation reaction here.) ; the high-energy line hardening type organopolysiloxane constituent hardened by the peroxide hardening mold organopolysiloxane elastomer constituent; gamma ray, the ultraviolet rays, or electronic irradiation which carries out heating hardening according to an organic peroxide catalyst is illustrated. It is an addition-reaction hardening type organopolysiloxane constituent from the point of excelling in the homogeneity of a cure rate being quick or hardening preferably. Especially a desirable thing consists of the organopolysiloxane which has at least two low-grade alkenyl machines in (A) 1 molecule, organopolysiloxane which has at least two silicon atomic-union hydrogen atoms in (B) 1 molecule, and a (C) platinum system catalyst as such an addition-reaction hardening type organopolysiloxane constituent.

[0008] The substitute monovalent hydrocarbon group which has a substitute alkyl group; phenyl group like a methyl group, an ethyl group, a propyl group, a butyl, an alkyl group; 2-phenylethyl machine like an octyl machine, 2-phenylpropyl machine, 3 and 3, and 3-trifluoromethyl propyl group as other organic machines combined with the silicon atom of the organopolysiloxane used as the base resin of the hardenability organopolysiloxane constituent mentioned above, a tolyl group, an aryl group; epoxy group like a xylyl group, a carboxylate machine, a sulfhydryl group, etc. is illustrated.

Organopolysiloxane elastomer spherical fine particles The addition-reaction hardening type, the condensation reaction type, or peroxide hardening type organopolysiloxane constituent mentioned above It mixes with water under presence of a surfactant like a nonionic surface active agent, an anionic

surface active agent, a cationic surface active agent, or an amphoteric surface active agent. By the gay mixer, the colloid mill, the homogenizer, the propeller type mixer, etc., uniformly After mixture, The technique; addition-reaction hardening type which emits into hot water 50 degrees C or more, is made to harden, is made to dry, and is obtained, The technique; addition-reaction hardening type, condensation-reaction hardening type which are made to spray and harden the technique; energy-line hardening type organopolysiloxane constituent which sprays a condensation-reaction hardening type or a peroxide hardening type organopolysiloxane constituent directly into a heat style, is made to harden it, and is obtained under high-energy irradiation, and obtain fine particles, It is obtained by the technique of well-known grinders, such as a ball mill, an atomizer, a kneader, and a roll mill, grinding what stiffened the peroxide hardening type or the high-energy hardening type organopolysiloxane constituent under high-energy irradiation, and obtaining fine particles etc. The technique of being mixed with water under presence of a surfactant like a nonionic surface active agent, an anionic surface active agent, a cationic surface active agent, or an amphoteric surface active agent, and emitting uniformly an addition-reaction hardening type, a condensation-reaction hardening type, and a peroxide hardening type organopolysiloxane constituent after mixture and into hot water 50 degrees C or more, making harden them by the gay mixer, the colloid mill, the homogenizer, the propeller type mixer, etc., making dry, and acquiring from the point of moreover obtaining spherical small fine particles by the homogeneity of a particle diameter is desirable.

[0009] The detail of this component is indicated by JP,4-66446,B, JP,2-243612,A, and JP,4-17162,B, and training fill E-506C (tradename by Dow Corning Toray Silicone, Inc.) is mentioned as commercial elegance, for example. The mean particle diameter of this component is required in order that that it is 1.0-10.0 micrometers may give 1.0-15.0 micrometers of smoothness, soft feelings, and the healthy and natural feelings of color preferably to the charge of makeup of this invention. A smoothness and a soft feeling are lost, when 15.0 micrometers is exceeded, it is rough with less than 1.0 micrometers, and there is admiration.

[0010] In this invention, the loadings of organopolysiloxane elastomer spherical fine particles are 1.0 - 15.0 % of the weight more preferably 1.0 to 20.0% of the weight 1.0 to 30.0% of the weight. At less than 1.0 % of the weight, loadings are inferior to the adhesion to the skin, when there are few improvement effects of usability and they exceed 30.0 % of the weight.

[0011] The porous material fine particles used in this invention are the fine particles of 1.0-10.0 micrometers of mean particle diameters preferably 1.0-15.0 micrometers of mean particle diameters. The mean particle diameter of a smoothness is lost by less than 1.0 micrometers, when a mean particle diameter exceeds 15.0 micrometers, it is rough, and there is admiration.

[0012] As an example of porous material fine particles, there are a calcium silicate, a magnesium silicate, silicic-acid strontium, an aluminum silicate, the silicic-acid metal salt like a silicic-acid barium grade, a calcium carbonate, the carbonic acid metal salt like a cobalt carbonate grade, a tungstic-acid metal salt like a calcium wolframate, cobalt oxide, a metallic oxide like alpha-iron-oxide grade, a metal hydroxide like a hydration iron oxide, etc., in addition a silica (silica gel is included.), a hydro \*\*\*\*\* light, lanolin powder, etc. are mentioned. Moreover, you may use spherical porosity resin fine particles, such as vinyl acetate, N-vinyl pyrrolidone, 2, 4-diamino-6-phenyl-1,3,5-triazine, methacrylic-acid \*\*\*\*\* , acrylic esters (a methyl ester, ethyl ester, etc.) (a methyl ester, ethyl ester, etc.), a still divinylbenzene copolymer, an ethylene-vinyl acetate copolymer, a vinyl chloride vinyl acetate copolymer, nylon, 4 fluoridation ethylene, and polyethylene. As a suitable thing, porous material spherical resin fine particles, such as inorganic fine particles, such as a porous material spherical silica and a porous material tabular silica, and a porous material methacrylic ester, are mentioned among

these porous material fine particles.

[0013] The loadings to the charge of makeup makeup of porous material fine particles are 1.0 - 15.0 % of the weight more preferably 1.0 to 20.0% of the weight 1.0 to 30.0% of the weight. at less than 1.0 % of the weight, admiration is lost smoothly -- it is inferior to the adhesion to the skin when 30.0 % of the weight is exceeded

[0014] The charge of makeup makeup of this invention can be made to contain fine particles other than the above-mentioned organopolysiloxane elastomer spherical fine particles and porous material fine particles. There are the following inorganic pigment, an organic pigment, etc. as such fine particles.

[0015] As an inorganic pigment, talc, a kaolin, a mica, a sericite, a silica, Clay mineral powder, such as a magnesium silicate, a calcium silicate, an aluminum silicate, a bentonite, and a montmorillonite, An alumina, a barium sulfate, dibasic calcium phosphate, a calcium carbonate, A hydration iron oxide, a hydroxyapatite, titanium oxide, particle titanium oxide of 0.1 micrometers or less of particle diameters, A zirconium oxide, a zinc oxide, a hydroxyapatite, an iron oxide, titanite, iron, Ocher, mango violet, cobalt violet, chromium hydroxide, A chrome oxide, cobalt oxide, titanite, cobalt, cobalt

\*\*\*\*\* , Berlin blue, ultramarine blue, a titanium oxide coated mica, titanium oxide coated talc, the compound pigment that composite-ized these two or more sorts are mentioned.

[0016] As an organic pigment used by this invention, what lake-ized polyester, a polymethyl methacrylate, a cellulose, 12, nylon, 6 nylon, styrene, the copolymer of an acrylic acid, polypropylene, a vinyl chloride, nylon powder, polyethylene powder, benzoguanamine powder, tetrafluoroethylene powder, a boron nitride, a scales foil, and tar system coloring matter, the thing which lake-ized the natural coloring matter, the compound pigment which composite-ized the inorganic pigment and the organic pigment are mentioned.

[0017] The inorganic pigment and organic pigment which are used by this invention may be processed by hydrophobing processing. Makeup rice cake, such as a deck watertight luminaire, sweat-proof, and sebum-proof nature, improves much more, without carrying out color separation by carrying out hydrophobing processing. As a hydrophobing processing agent, organic compounds, such as dextrin fatty-acid \*\*\*\*\* , a metallic soap, a silicone system compound, and a \*\*\*\*\* zylidene sorbitol, are mentioned. Well-known technique should just be conventionally used for the technique of carrying out hydrophobing processing using these hydrophobing processing agents. For example, the powder obtained by the technique indicated by JP,62-205165,A, JP,61-58499,B, JP,56-43264,B, JP,56-16404,A, JP,59-76009,A, JP,60-163973,A, JP,63-113081,A, JP,63-113082,A, etc. is mentioned.

[0018] 70.0 - 99.0 % of the weight in the charge whole quantity of makeup makeup is suitable for the loadings of the whole fine particles in the charge of makeup makeup of this invention.

[0019] In order to obtain the charge of makeup makeup of this invention, it can obtain by carrying out distributed combination of the fine particles and the oil content containing organopolysiloxane elastomer spherical fine particles and porous material fine particles uniformly.

[0020] As an oil content used here, for example A liquid paraffin, squalane, Vaseline, a polyisobutylene, a micro crystalline wax, the isopropyl myristate, A milli still octyl dodecanol, G (2-ethylhexyl) succinate, G soak tongue acid neopentyl glycol, the glyceryl monostearate, Isostearic acid triglyceride, palm-oil-fatty-acid triglyceride, The castor oil, ethanol, an octyl dodecanol, a hexadecyl alcohol, Cetyl alcohol, oleyl alcohol, a stearyl alcohol, a polyethylene glycol, A lauric acid, a palmitic acid, an oleic acid, stearin acid, isostearic acid, Lanolin, yellow bees wax, a hydrocarbon like olive oil, ester, glyceride, a lower alcohol, higher alcohol, polyhydric alcohol, a higher fatty acid, or an organopolysiloxane fluid is illustrated. The loadings of these oil contents are 1.0 - 30.0 % of the weight in the charge whole quantity of makeup makeup.

[0021] You may blend water, a surfactant, a thickener, antiseptics, perfume, etc. with the charge of makeup of this invention further if needed. The charge of makeup of this invention can be used as foundation, cheek red, eye shadow, a face powder, etc.

[0022]

[Example] Next, an example explains this invention. Loadings are weight % among an example.

Example 1 Presto powder (1) Talc Residue (2) Sericite 10.0 Weight % (3) Kaolin 5.0 (4) Titanium dioxide 5.0 (5) Myristic-acid zinc 5.0 (6) Color pigment 3.0 (7) Training fill E-506C 10.0 (8) Porous material spherical silica (3 micrometers of mean particle diameters) 5.0 (9) Squalane 3.0 (10)

\*\*\*\*\* octanoic-acid glycerol 2.0 (11) Antiseptics optimum dose (12) Perfume Optimum dose

[0023] (6) is mixed with [a process (1)] with a blender. After adding (2), (3), (4), (5), (7), and (8) to this and mixing to it, after adding and toning (9), (10), and (11), (12) is sprayed and it mixes uniformly. After a grinder grinds this, compression molding of the sieve is carried out at through and an inside pan.

[0024]

Example 2 Powdery foundation (1) Talc Residue (2) Sericite 15.0 Weight % (3) Mica 20.0 (4) Titanium oxide 10.0 (5) Color pigment 5.0 (6) Training fill E-506C 5.0 (7) Porous material spherical resin fine particles 10.0 ("micro sponge [ ]" Toray Industries and the Dow-Jones company make, 7 micrometers of mean particle diameters)

(8) Squalane 6.0 (9) Dimethylpolysiloxane 3.0 (10) Myristic-acid octyl 3.0 (11) Monochrome oleic-acid sorbitan 1.0 (12) Antiseptics and antioxidant Optimum dose (13) Perfume Optimum dose [0025] Each component was mixed like the [process] example 1, and powdery foundation was obtained.

[0026]

Example 3 Foundation in two ways (1) Siliconization talc Residue (2) Siliconization sericite 10.0 Weight % (3) Siliconization mica 30.0 (4) Siliconization titanium dioxide 10.0 (5) Siliconization color pigment 5.0 (6) Training fill E-506C 5.0 (7) Porous material spherical silica 5.0 (3 micrometers of mean particle diameters) (8) Squalane 3.0 (9) Solid paraffin 1.0 (10) Dimethylpolysiloxane 4.0 (11) Octyl methoxycinnamate 1.0 (12) Antiseptics and antioxidant Optimum dose (13) Perfume Optimum dose

[0027] Each component was mixed like the [process] example 1, and the foundation in two ways was obtained.

[0028]

Example 4 Foundation in two ways (1) Siliconization talc Residue (2) Siliconization mica 20.0 Weight % (3) Siliconization titanium dioxide 10.0 (4) Siliconization color pigment 5.0 (5) Training fill E-506C 20.0 (6) Porous material tabular silica (4 micrometers of mean particle diameters) 15.0 (7) Solid paraffin 1.0 (8) Liquid paraffin 6.0 (9) Dimethylpolysiloxane 4.0 (10) Octyl methoxycinnamate 2.0 (11) Antiseptics and antioxidant Optimum dose (12) Perfume Optimum dose [0029] Each component was mixed like the [process] example 1, and the foundation in two ways was obtained.

[0030]

Example 5 Powdery foundation (1) Talc Residue (2) Sericite 10.0 Weight % (3) Mica 5.0 (4) Titanium oxide 10.0 (5) Color pigment 5.0 (6) Training fill E-506C 35.0 (7) Porous material spherical silica (5 micrometers of mean particle diameters) 5.0 (8) Squalane 6.0 (9) Dimethylpolysiloxane 3.0 (10) Myristic-acid octyl 3.0 (11) Monochrome oleic-acid sorbitan 1.0 (12) Antiseptics and antioxidant Optimum dose (13) Perfume Optimum dose [0031] Each component was mixed like the [process] example 1, and powdery foundation was obtained.

[0032]

Example 6 Powdery foundation (1) Talc Residue (2) Sericite 10.0 Weight % (3) Mica 5.0 (4) Titanium oxide 10.0 (5) Color pigment 5.0 (6) Training fill E-506C 5.0 (7) Porous material spherical silica (5

micrometers of mean particle diameters) 35.0 (8) Squalane 6.0 (9) Dimethylpolysiloxane 3.0 (10) Myristic-acid octyl 3.0 (11) Monochrome oleic-acid sorbitan 1.0 (12) Antiseptics and antioxidant Optimum dose (13) Perfume Optimum dose [0033] Each component was mixed like the [process] example 1, and powdery foundation was obtained.

[0034]

Example 1 of a comparison Powdery foundation (1) Talc Residue (2) Sericite 15.0 Weight % (3) Mica 30.0 (4) Titanium oxide 10.0 (5) Color pigment 5.0 (6) Training fill E-506C 5.0 (7) Squalane 6.0 (8) Dimethylpolysiloxane 3.0 (9) Myristic-acid octyl 3.0 (10) Monochrome oleic-acid sorbitan 1.0 (11) Antiseptics and antioxidant Optimum dose (12) Perfume Optimum dose [0035] Each component was mixed like the [process] example 1, and powdery foundation was obtained.

[0036]

Example 2 of a comparison Powdery foundation (1) Talc Residue (2) Sericite 15.0 Weight % (3) Mica 25.0 (4) Titanium oxide 10.0 (5) Color pigment 5.0 (6) porous-material spherical silica (5 micrometers of mean particle diameters) 10.0 (7) Squalane 6.0 (8) Dimethylpolysiloxane 3.0 (9) Myristic-acid octyl 3.0 (10) Monochrome oleic-acid sorbitan 1.0 (11) Antiseptics and antioxidant Optimum dose (12) Perfume Optimum dose [0037] Each component was mixed like the [process] example 1, and powdery foundation was obtained.

[0038] next -- the charge of makeup obtained in the examples 1-6 and the examples 1 and 2 of a comparison -- the lightness of \*\* mileage, and \*\* -- admiration, \*\* smooth feeling, \*\* soft feeling, and the feeling of \*\* fit were evaluated smoothly Evaluation had five phase evaluation which is shown in ten persons in the next table 1 performed, and an evaluation result which is shown below by the average was displayed.

[0039]

[Table 1]

\*\*\*\*\* evaluation item  
1 2 3 4 5 \*\*\*\*\* The  
lightness of mileage It is heavy. It is a little heavy. Common It is a little light. It is light. Smoothly  
Admiration There is nothing. There is nothing a little. Common It is a little. It is. Smooth feeling There is  
nothing. There is nothing a little. Common It is a little. It is. Soft feeling there is nothing there is nothing  
a little -- usually -- It is a little. It is. Feeling of a fit There is nothing. there is nothing a little -- usually -  
- It is a little. Existing

\*\*\*\*\* [0040] More  
than more than display 0:4.50:3.5 of an evaluation result, more than less than [ 4.5 ] \*\*:2.5, more  
than less than [ 3.5 ] x:1.5, less than [ less than / 2.5 / xx:1.5 ] [0041] The result based on the above-  
mentioned evaluation display is shown in Table 2.

[0042]

[Table 2]

\*\*\*\*\* sample  
Lightness of mileage It is admiration smoothly. Smooth feeling Soft feeling The feeling of a fit  
\*\*\*\*\* The  
example 1 0 0 0 0 0 Example 2 0 0 0 0 0 Example 3 0 0 0 0 0 Example 4 0 0 0 0 0 Example 5  
0 0 \*\* 0 The \*\* example 6 0 0 \*\*\*\* \*\*  
\*\*\*\*\* Example  
of comparison 1 \*\*x \*\*x 0 Example of comparison 2\*\* 0x xx  
O\*\*\*\*\* [0043]

[Effect of the Invention] As explained above, when ointment is rubbed on the skin, the charge of makeup makeup of this invention has the touch been smooth, and it is smooth, combines the soft touch and has.

---